**Vesna Zorić**

Etnografski muzej
Zagreb
vzoric@etnografski-muzej.hr

# Iskustva u primjeni računalnog programa PROMUS u dokumentaciji zbirki Etnografskog muzeja u Zagrebu

Uvođenje informacijskog sustava u zagrebački Etnografski muzej započelo je početkom 1990-ih godina u okviru projekta MUGIS[1] kojim je MDC[2] ponudio program MODES.[3] Svrha projekta bila je ujednačavanje dokumentacija muzejskih i galerijskih predmeta, kako bi se prevladala neujednačenost i raznolikost dokumentacijskih metoda, koje su onemogućavale izraženu potrebu za mrežnim povezivanjem, razmjenu podataka i komunikaciju kako na nacionalnoj, tako i na međunarodnoj razini. Svi kustosi Muzeja pohađali su prvotno tečajeve za početnike kako bi se upoznali s operativnim sustavom MS DOS, odnosno s mogućnostima i tehnikom rada na računalima, te s programom za obradu teksta MS WORD. Potom su pohađali seminare na kojima je predstavljen MODES. Uporedo s počecima primjene novoga dokumentacijskog sustava, neki od kustosa sudjelovali su u izmjenama i dopunama jedinstvene klasifikacije muzejskih predmeta (prema vrstama predmeta) za etnografske muzeje.

MODES je ubrzo napušten, a o razlozima njegovog napuštanja bilo je dosta rasprava i tekstova u publikacijama MDC-a.[4] No, ti prvi koraci u svladavanju računalne tehnologije bili su dobra podloga za nastavak učenja za služenje računalima i razvijanje svijesti o važnosti primjene informacijske tehnologije u muzejskoj djelatnosti. U sljedećoj etapi krenulo se, slično kao i u ostalim muzejima, u samostalno rješavanje problema informatizacije jer nije postojao, niti danas postoji, organizirani i

---

[1] Museum and Gallery Information System
[2] Muzejski dokumentacijski centar
[3] Museum Object Data Entry Syistem
[4] Informatica Museologica, Bulletin o informatizaciji muzejske djelatnosti u Hrvatskoj

planirani proces informatizacije. Godine 1995. započela je suradnja s tvrtkom Microlab na implementaciji multimedijalnog programa za obradu zbirki pod nazivom PROMUS.[5] Prva praktična iskustva u primjeni programa pokazala su da su potrebne dorade i promjene kako u tehnološkom, tako i u stručnom pogledu. Prvotni problemi ticali su se podatkovnih standarda o muzejskom predmetu. Kako na nacionalnoj razini ne postoji takav opće prihvaćeni standard,[6] kao ishodište za standardizaciju poslužili su podaci sa starih "papirnatih" inventarnih kartica najprije pisanih rukom, a potom pisaćim strojem. Na kartici je zabilježen inventarni broj predmeta, te analizom dobiveni podaci o njegovim strukturalnim (materijal, oblik, tehnika izrade) i funkcionalnim (namjena, uporaba) svojstvima. Osim podataka koje sam predmet emitira, bilježili su se i podaci o načinu i datumu nabave, dimenzijama, otkupu, a najveći dio kartice zauzimao je podroban opis predmeta. Većina podataka s tih inventarnih kartica sadržana je i u *Međunarodnim smjernicama za podatke o muzejskom predmetu: CIDOC-ove podatkovne kategorije*[7] te u *Međunarodnim podatkovnim standardima za etnologiju/etnografiju*[8] koji su nam zasigurno bili putokaz za valjano rješavanje problema standardizacije.

Najveći problem koji se odnosi na unos, a potom i pretraživanje podataka zadaje nepostojanje jedinstvenog nazivlja za predmete i sve druge pojmove koji bi trebali biti jednoznačni i međusobno usklađeni, bez čega je nemoguće ostvariti kvalitetnu bazu podataka i njezino pretraživanje. Početni unosi obilovali su različitim inačicama za isti pojam. Najizrazitija je konfuzija u pogledu nazivlja bila prisutna među kustosima koji vode zbirke narodnih nošnji i tekstilija (s obzirom da su tekstilni predmeti najbrojniji u fundusu Muzeja, njima se bavi sedam kustosa).[9] Na mnogobrojnim sastancima Stručnog kolegija nastojali smo uskladiti i dogovoriti najjasnije i najjednostavnije termine.[10] Svjesni smo da smo time riješili samo interne terminološke probleme, no ostaje problem terminologije na nacionalnoj razini jer trenutno ne postoji međumuzejska suradnja koja bi se bavila razvijanjem kontrole nazivlja. Muzejskim stručnjacima predstoji što skorije okupljanje i rješavanje ovog neophodnog i važnog segmenta koji, uz standardizaciju unosa, uvjetuju prijelaz raspoloživih podataka u dostupne informacije, odnosno uspostavljanje učinkovito-

---

[5] Skraćenica od Pro Museum, koja je prihvaćen na prijedlog Mirjane Drobine, voditeljice marketinga EMZ.

[6] Na prezentaciji programa PROMUS na 2. seminaru *Arhivi, knjižnice, muzeji …* održanom u Rovinju 1997. godine, pohvaljeno je sofversko rješenje upisa i pretraživanja građe, a zamjereno da se ne pridržava podatkovnog standarda. Kojeg?

[7] International guidelines for museum object informations: the CIDOC information categories, International documentation Committee (CIDOC), International council of Museums ( ICOM), 1995.

[8] International Core Data Standards for Ethnology/Ethnography, CIDOC Ethnoworking Group, International Council of Museums, 1996

[9] Npr., za unos podatka za "Materijal" upisivano je: pamučno platno, domaće pamučno tkanje, pamučni materijal i sl.

[10] Da bismo izbjegli opširne, duge i opisne nazive, prihvaćeno je upisivanje imenice u nominativu jednine. Npr., za unos podatka za "Materijal", jedini je mogući odabir  - pamuk.

ga dokumentacijsko-informacijskog sustava. U razrješavanju tih problema od velike je važnosti i seminar *Arhivi, knjižnice, muzeji: mogućnosti suradnje u okruženju globalne informacijske infrastrukture* koji se već nekoliko godina održava u Rovinju.

Računalni program PROMUS Ver:2.0, nastao na osnovi baze podataka izrađene u programu Access, udovoljava našim potrebama. Izradila ga je tvrtka Microlab, ponajprije za potrebe Etnografskog muzeja, a kasnije ga je otkupilo nekoliko zagrebačkih muzeja. Koncipiran je tako da omogućuje pregled, unos, uređivanje i povezivanje tekstualnih i slikovnih zapisa.

Svaki od trinaest kustosa posjeduje osobno računalo.[11] Računala su različitih konfiguracija, od Pentiuma I 75 MHz do Celerona 800, s instaliranim PROMUS programom te spojena na poslužitelj gdje je smještena baza. Baze podataka zaštićene su zaporkom pojedinog kustosa koji jedini može unositi i uređivati podatke. U pregledu se mogu vidjeti samo oni podaci koje je odredio administrator (Slika 1). Struktura podataka sadržana je u osam maski koje omogućuju upis glavnih kategorija: osnovne informacije, dodatne informacije, način izrade, mjesto i vrijeme nastanka, restauracije, podaci o nabavi i bilješka. Svaka od ovih osnovnih kategorija podataka sadrži različit broj polja kojima se detaljiziraju podaci. Na slikama 2-9, mogu se vidjeti sadržaj i nazivi polja. Podaci se mogu pretraživati prema književnom nazivu, smještaju, mjestu nastanka i nabavi. Uz polja za pretraživanje ponuđen je izbornik (terminološke liste) s već usvojenim terminima kako bi se izbjeglo upisivanje neodgovarajućih. Budući da je obrađen tek mali dio fundusa Muzeja, trenutno je pretraživanje omogućeno samo neposrednim korisnicima, kustosima.12 No, već je sada vidljiva efikasnija i brža mogućnost upisa. Do sada su unešeni podaci o preko 6.000 predmeta. Taj bi broj mogao biti i veći, no unos u računalo nije tek puki prijenos podataka sa starih kartica, od kojih su mnoge nepotpune što zahtijeva listanje po inventarnoj knjizi ili pak neposredan kontakt s predmetom da bi se mogli unijeti podaci o, npr., materijalu ukrasa, dimenziji i sl. Drugi razlog koji utječe na relativnu sporost dobivanja potpune informacije o predmetu jest snimanje predmeta i povezivanje tekstualnih sa slikovnim zapisima. Fotografiranje predmeta obavlja se s *Kodak DC 120 ZOOM, Ver. 1.0.2* digitalnom kamerom (za koju kažu da je već dio daleke prošlosti). Sam postupak fotografiranja i potrebne predradnje obavlja kustos. To podrazumijeva uzimanje predmeta (kojeg su preparatorice prethodno očistile, oprale ili izglačale) iz depoa, stavljanje na podlogu za snimanje (obično na podu u kustosovoj sobi) što zna biti vrlo zahtijevno ako se, npr., radi o gusto nabranim tkanim ili vezenim pregačama, suknjama ili oplećima. Nakon snimanja, digitalni zapisi se prenose u računalnu bazu iz koje se slike obrađuju pomoću programa Adobe Photoshop 5.0. Kako nitko od kustosa nije profesionalni fotograf, za obradu fotografija gubi se dosta vremena (centriranje predmeta, brisanje slučajno snimljenih detalja, izravnavanje predmeta, izoštravanje i sl.). Obrada uključuje i smanji-

---

[11] Takva opremljenost računalima realizirana je tek 2001. godine.

[12] Fundus Muzeja obuhvaća preko 80.000 inventarnih brojeva, no taj je broj znatno veći budući da mnogi kompleti nošnji sadrže i preko 10 dijelova, a upisani su pod istim inventarnim brojem.

vanje rezolucije i formata digitalnog zapisa kako se ne bi preopteretila baza i onemogućilo njezino funkcioniranje u Accessu. Optimalno rješenje za naše potrebe jesu slike veličine oko 300 KB, u rezoluciji 72x72 dpi-ja, na TIFF formatu. Slični parametri vrijede i pri skeniranju. Na taj način obrađene slike mogu poslužiti samo za identifikaciju predmeta. Nakon što se slikovni zapis označi inventarnim brojem, slijedi spajanje s pripadajućim tekstualnim zapisom. Brzina spajanja pak zavisi o jačini računala na kojemu se radi, a većinom su oni slabije jakosti. Do današnjih dana skenirano je i najvećim dijelom snimljeno digitalnom kamerom preko 1.000 predmeta. Osim povezivanja sa slikovnim zapisima, postoje opcije povezivanja s video- i zvučnim zapisima koje u praksi još nisu zaživjele. Ove multimedijalne opcije pružaju mogućnost bilježenja raznih informacija o predmetu, npr., zvuka tradicijskog instrumenta ili pak uporabe predmeta u njegovom nemuzealnom okruženju.

Pohrana, odnosno kopija zapisa (*back up*), radi se automatski, jednom mjesečno na poslužitelju. No, time se samo zaštićuje baza podataka u slučaju fizičkog ili programskog oštećenja lokalnoga tvrdog diska, ali potpuna zaštita pretpostavlja pohranjivanje na nekom od lako prenosivih medija (*zip driveri*, kompaktni diskovi i sl.) na posebno zaštićenome mjestu. Takav stupanj zaštite još nismo realizirali. Općenito gledajući, svi problemi tehničke i tehnološke prirode smanjili bi se zapošljavanjem muzejskog informatičara. Ne samo što bi se time promptno reagiralo na svakodnevne poteškoće, što bi vjerojatno pomoglo većoj informatičkoj edukaciji kustosa, nego bi implementacija novih spoznaja i standarda u postojeće programsko rješenje bila kudikamo jasnija i učinkovitija.

Primjena računalnog programa PROMUS u dokumentaciji građe pruža mogućnost bržeg unosa podataka, stvaranja baze podataka, uspostavljanja mreže baza podataka, brže diseminacije, integriranja foto-, video- i audio-zapisa, i pretraživanja prema različitim zahtjevima korisnika. Pojedine od ovih mogućnosti još nisu iskorištene. No, pred nama je period mukotrpnog rada na upisu podataka, njihovom povezivanju i usklađivanju prema definitivno prihvaćenim standardima i terminologiji jer su samo kvalitetne baze podataka temelj budućeg sudjelovanja u globalnoj informacijskoj mreži, te uspješnih multimedijalnih projekata. Jesmo li na dobrom putu, pokazat će vrijeme.

U radu je opisan primjer primjene računalne tehnologije u samo jednom aspektu muzejske djelatnosti - u dokumentaciji. Međutim, nesagledive su mogućnosti koje nove informacijske tehnologije nude, ne samo u obradi građe, već i pri planiranju i koncipiranju izložbi, prezentaciji, edukaciji i komunikaciji. Etnografski muzej nastoji ići ukorak s novim zahtjevima. Među prvima je izdao CD-ROM uz izložbu "Pokućstvo u Hrvatskoj", a uskoro bi trebale biti dostupne obnovljene i proširene web-stranice.
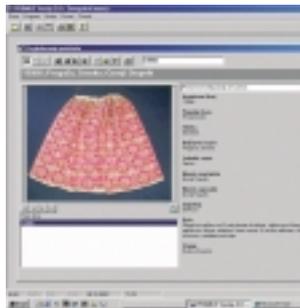
13.01



13.02



13.03



13.04

13.05
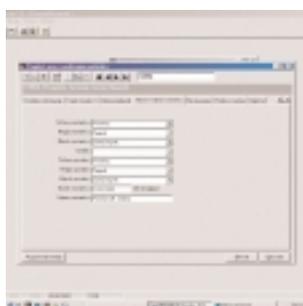


13.06
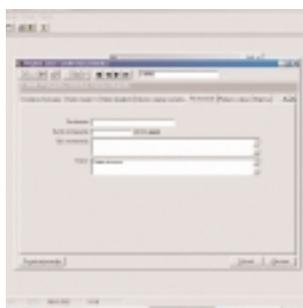


13.07
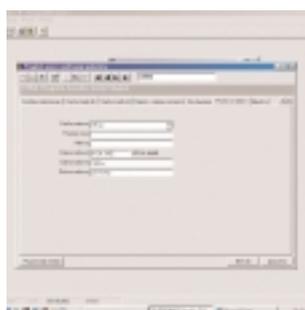


13.08
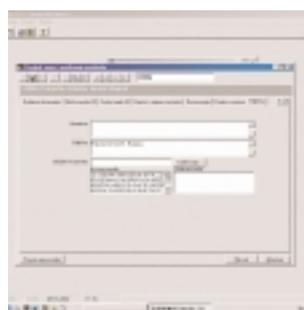


13.09

**Vesna Zorić**

Ethnographic museum
Zagreb
Croatia
vzoric@etnografski-muzej.hr

# Experiences in the Application of the Computer Program Promus for the Documentation of Collections of the Ethnographic Museum of Zagreb

The implementation of an information system at the Ethnologic Museum of Zagreb started in the early nineties as part of the MUGIS[1] project, through which the MDC[2] offered the MODES[3] application. The purpose of the project was the alignment of the museum and gallery object documentation, due to the fact that the documentation methods were inhomogeneous and differing, which rendered the necessary future networking, data exchange and communication on the national as well as the international level impossible. All curators of the Museum initially took beginner MS DOS operative system courses in order to become familiar with the possibilities and technology of using the computer and the MS WORD text processor, followed by seminars including the presentation of MODES. Parallel to the beginning of the new documentation system application, some curators participated in modifying and completing the uniform classification of museum objects (by types of objects) for ethnographic museums. The reasons for the cancellation of this program were much discussed and written about in the MDC[4] publication. However, these initial steps in

---

[1] Museum and Gallery Information System
[2] Museum Documentation Centre
[3] Museum Object Data Entry System
[4] Informatica Museologica, Bulletin on the Introduction of IT to Museum Activities in Croatia

computer literacy were a good basis for the continuation of the computer application training and developing awareness of the importance of IT application in the museum activities. The following stage, like in other museums, concentrated on finding individual solutions of the problem of computer support implementation, since no organized and planned process of computerization existed and has still not been developed to date. In cooperation with the company Microlab, PROMUS[5], a multimedia program for the collections processing was accepted in 1995. The first practical experiences in the application of the program called for modifications and changes both in the technical and professional sense. Initial problems were related to the data standards about a museum object. Since no such generally accepted standard exists on the national level[6], the starting point of the standardization were data kept on old "paper" inventory cards, which were first completed manually and afterwards by typewriters. Every object registered on such cards is allocated an inventory number, while data on the structural characteristics (material, form, production technique) and functional characteristics (purpose, use) were added in the course of the object analysis. In addition to information deducted from the object itself, the cards contained also data about the way and date of acquisition, dimensions and purchase, while the major part of the card was reserved for a detailed description of the object. The major part of data recorded on such inventory cards is contained in the *International Guidelines for Museum Object Information: the CIDOC information categories*[7] and *International Core Data Standards for Ethnology/Ethnography*[8], which we used as guidelines in finding proper solutions for the problem of standardization.

The biggest problem related to the entry and subsequently to the browsing through data, is posed by the lack of uniform terminology, not just the descriptions of items, but also all terms that should be unambiguous and mutually synchronized, which is a serious obstacle to the creation of a quality data base and to browsing. Initial entries were full of different entries and term variations for the same concept. The terminological confusion was most evident among curators managing folk costume and textile collections (since the textile collections comprise the major part of the Museum's holdings, seven curators were assigned to work on them)[9]. In numerous meetings of the Board of Experts, we attempted to synchronize and agree upon the clearest and simplest terms[10]. We are aware that, by doing so, we managed to solve only the internal terminology problem, however, the problem of national-level ter-

---

[5] Abbreviation for Pro Museum; the name was accepted upon proposal of Mirjana Drobina, head of marketing of the Ethnological Museum of Zagreb

[6] During the presentation of the Promus application at the 2nd seminar *Archives, Libraries, Museums* held in Rovinj in 1997, the material entry and browsing software was praised, but the non-compliance with the data standard was criticized. However, it was not made clear with which standard.

[7] International documentation Committee (CIDOC), International council of Museums (ICOM), 1995

[8] CIDOC Ethnoworking Group, International Council of Museums, 1996

[9] E.g., the following entries were made under "Material": cotton fabric, homemade cotton weave, cotton material etc.

[10] In order to avoid extensive, lengthy and descriptive names, the entry of a noun in nominative singular was accepted. Thus, the single acceptable entry for "Material" would be - cotton.

minology remains, because there is no inter-museum cooperation to deal with the development of terminology control. Museum professionals still have to meet as soon as possible in order to discuss this segment, which is essential and important for the standardization of entries, but also for the transfer of available data into accessible information and the establishment of an effective documentation and information system. The expert conference *Archives, Libraries, Museums: Possibilities of Cooperation in a Global Information Structure Environment*, taking place for several years now in Rovinj, is of crucial importance for the solution of these problems.

The computer program PROMUS Version 2.0 was developed based on a database created in the Access application, which seems to satisfy our requirements. Developed by the company Microlab primarily for the needs of the Ethnographic Museum, it was later acquired also by several other Zagreb museums. It was conceived in such way as to enable the viewing, entry, editing and linking of text and image records. Each of the thirteen curators owns a PC[11], with different configuration settings (from Pentium I 75 MHz to Celeron 800) and with the Promus application installed. Each of these PCs is linked to the server where the database is located. The databases are protected by individual curator's passwords, so that the entry and editing of data is possible only to curators using their individual passwords, while only data selected by the administrator can be viewed (Picture 1). The data structure is contained in 8 forms that enable the entry of the main categories: basic information, additional information, production mode, place and date of production, restoration, data on acquisition and notes. Each of these basic data categories contains a varying number of fields used for the entry of details. Pictures 2-9 show the fields content and descriptions. Data may be browsed by title, location, place of origin and acquisition. Fields used for browsing offer a menu (term lists) with already accepted terms to avoid invalid entries. The browse option is enabled only for direct users, curators, due to the fact that only a small part of the Museum's holdings was processed[12]. However, more efficient and faster entry options are already evident. Data about more than 6.000 objects have been entered already. This number could have been even higher, but the entry into the computer is not merely a transfer of data from old cards, because many of them are incomplete and require looking into the inventory record or a direct contact with the object in order to establish, for instance, the material of the decoration, its dimensions, etc. Another reason for the relatively slow retrieval of the complete information about a particular item is the need to make visual recordings of the object and to link the textual with the visual records. Pictures of the object are taken by a *Kodak DC 120 ZOOM, Ver. 1.0.2* digital camera (considered by some as being history). The process of picture taking and preparation works are done by the curator. This involves taking the object (previously cleaned, washed or ironed by the preparators) from the storeroom, putting it on a background (usually on the floor of the curator's room), which can be a very demanding job, especially if the object to be photographed is a richly plated woven or embroidered aprons, shirts or bodices. After the picture is taken,

---

[11] This computer equipment was introduced as late as in 2001

[12] The holdings of the Museum contain over 80 000 inventory numbers, but the actual number of objects is considerably higher since many folk costumes consist of 10 and more parts, but are entered under the same inventory number.

the digital record is transferred to the computer base, where it is processed in the *Adobe Photoshop 5.0* application. Since none of the curators is a professional photograph, the processing of the digital images is very time-consuming (the object needs to be centered, accidentally recorded details must be deleted, objects need to be straightened, sharpened etc.). The image processing includes the downscaling of the resolution and format of the digital record in order to avoid an overload of the database which and its malfunction in Access. For our purposes, the optimum size of the images is about 300 KB, a resolution of 72x72 dpi, saved in the .tiff format. Similar parameters apply for scanning. Images processed in this way serve only the purpose of object identification. After the visual record being allocated an inventory number, it needs to be linked to the corresponding textual record. The dynamics of the linking depends on the capacity of the respective computer, which is mainly not very powerful. To date, over 1.000 objects have been scanned and, for the most part, recorded by a digital camera. In addition to linking the text to visual records, it is also possible to link it to video or audio records. However, this option has still has not found its practical application. These multimedia options make it possible to record various information related to the object, e.g. the sound of a traditional instrument or the use of the object in its non-museum environment.

Monthly backup copies of the records are created automatically by the server. However, this does not protect the database in case of physical or program corruption of the local hard disc. A complete protection would be to save the files on one of the mobile media (zip drives, compact discs etc.) stored in a safe place. This level of protection has not yet been achieved. In general, all problems of technical or technological nature would be reduced by the employment of a museum IT operator. This would not only provide a prompt reaction to daily problems, which would probably contribute to the computer literacy of the curators, but also ensure a much more transparent and efficient implementation of new ideas and standards into the existing software application.

The application of the computer program Promus in the material documentation enables faster data entry, database creation and establishment of database networks, faster dissemination, integration of photo, video and audio records as well as browsing by various customer criteria. Some of these options have yet to be fully exploited. However, we are facing a period of painstaking work involving data entry, the linking of data and their alignment according to definitively accepted standards and technologies, because only high-quality databases can be the groundwork of a future participation in a global information network and successful multimedia projects. Time will show whether we are on the right track.

This paper contains an example of the application of computer technology in the museum activities in just one aspect - the documentation. However, the possibilities offered by the new information technology, not only in the processing of the material, but also in the planning and conceiving of exhibitions, presentation, education and communication, are immeasurable. The Ethnographic Museum is trying to keep step with new requirements. A first step was the issuing if the CD-ROM "Furniture in Croatia", while the renewed and expanded web site should be available shortly.

Prevela: Sanjna Novak